

**REMARKS**

Claims 1-19 are currently pending, wherein claim 19 has been added, claims 1-8, 17 and 18 have been withdrawn, and claim 9 has been amended. Applicants respectfully request favorable reconsideration in view of the comments presented below.

On page 2 of the Office Action ("Action"), the Examiner rejects claims 9-11 and 14 under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,678,030 to Imabayashi et al. ("Imabayashi"). Applicants respectfully traverse this rejection.

In order to support a rejection under 35 U.S.C. §102, the cited reference must teach each and every claimed element. In the present case, claims 9-11 and 14 are not anticipated by Imabayashi for at least the reason that Imabayashi fails to disclose each and every claimed element as discussed below.

Independent claim 9 defines a method of manufacturing a liquid crystal display device. As amended, the method includes, *inter alia*, forming a thin film transistor substrate; forming a color filter substrate; forming column spacers on one of the thin film transistor substrate and the color filter substrate, wherein the height of the column spacers differ as the position of the column spacers differ according to the expansion ratio of the cell gap between the thin film transistor substrate and the color filter substrate due to gravity; and bonding the substrates to each other.

Although Imabayashi may disclose providing column spacers with a first height and elasticity and column spacers with a second height and elasticity, nowhere in Imabayashi is there any disclosure of the differing heights being determined in accordance with the expansion ratio of the cell gap between the thin film transistor substrate and the color filter substrate due to gravity. Accordingly, Imabayashi fails to anticipate independent claim 9.

Claims 10, 11 and 14 depend from independent claim 9. Therefore, claims 10, 11 and 14 are patentably distinguishable over Imabayashi for at least those reasons presented above with respect to claim 9. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 9-11 and 14 under 35 U.S.C. §102.

On page 3 of the Action, the Examiner rejects claims 12 and 13 under 35 U.S.C. §103(a) as allegedly being unpatentable over Imabayashi. Applicants respectfully traverse this rejection.

In order to support a rejection under 35 U.S.C. §103, the Action must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some motivation to modify the applied reference. Second,

there must be a reasonable expectation of success. Finally, the modification must teach each and every claimed element. In the present case, claims 12 and 13 are not rendered unpatentable over Imabayashi because the Action fails to establish a *prima facie* case of obviousness as discussed below.

In rejecting claims 12 and 13, the Examiner asserts that one skilled in the art would have been motivated to modify the method of Imabayashi to include forming the column spacers of photo acryl using an ink jet because it was allegedly well known in the art to “form the spacer from acryl and use a ink jet method.” However, the mere fact it was known in the art is not in and of itself sufficient to establish obviousness.

As discussed in section 2143 of the MPEP, “[a] statement that modifications of the prior art to meet the claimed invention would have been ” 'well within the ordinary skill of the art at the time the claimed invention was made' ” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.” *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000) Accordingly, absent proper motivation to modify the teachings of Imabayashi, the rejection of claims 12 and 13 is improper.

Furthermore, even if, *arguendo*, one skilled in the art were motivated to modify the teachings of Imabayashi, the modification would still fail to render claims 12 and 13 unpatentable for at least the reason that the modification fails to disclose or suggest each and every claimed element. More specifically, Imabayashi fails to disclose or suggest that the differing heights of the column spacers are determined in accordance with the expansion ratio of the cell gap between the thin film transistor substrate and the color filter substrate due to gravity. (See discussion above with respect to claim 9). Therefore, claims 12 and 13 are patentably distinguishable over Imabayashi. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 12 and 13 under 35 U.S.C. §103.

New claim 19 defines a method of manufacturing a liquid crystal display device that includes, *inter alia*, forming at least two groups of column spacers, in different areas from each other, wherein the height of at least one of the groups of column spacers is different from the height of the other group of column spacers. Claim 19 is patentable distinguishable over the prior art of record for at least the reason that the prior art fails to disclose or suggest forming at

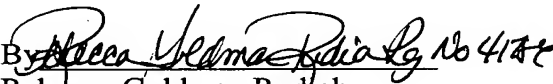
least two groups of column spacers in different areas from each other wherein the height of at least one of the groups is different from the other group.

The application is in condition for allowance. Notice of same is earnestly solicited. Should the Examiner for any reason find the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: February 2, 2005

Respectfully submitted,

  
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